

The GLOBE Buffet

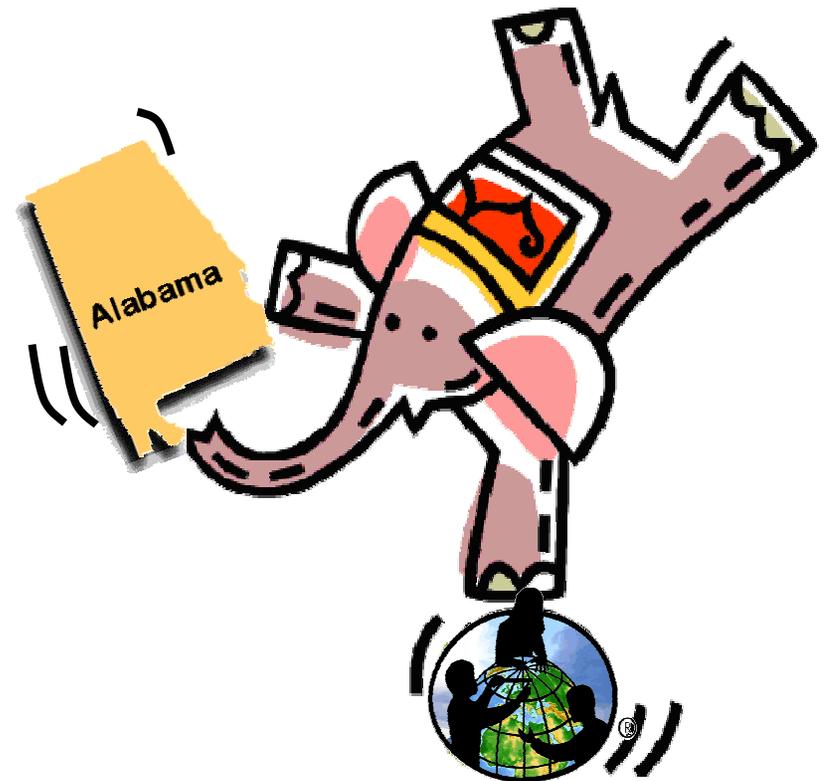
A “bite-size” recipe
for implementing
GLOBE on a large
scale

By Jerry Cobbs, Lynn
Vaughan, and Robin Nelson,
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Alabama Has a BIG Challenge!

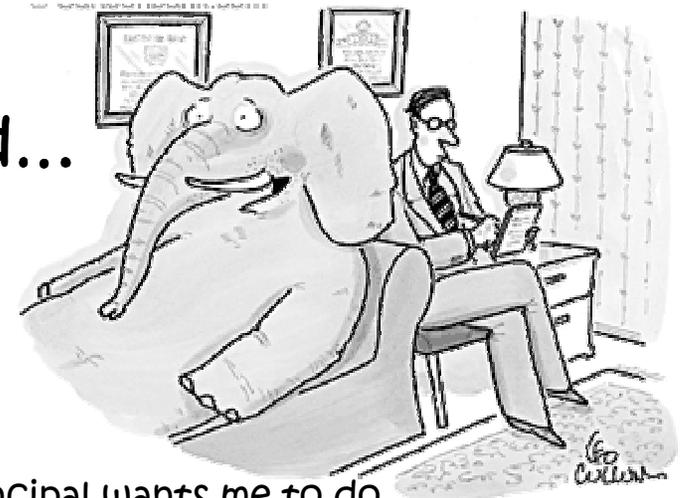
- In Alabama, The GLOBE Program is part of the Alabama Math, Science, and Technology Initiative (AMSTI)
- This partnership is called “AMSTI-GLOBE”
- AMSTI is currently serving 25% of Alabama schools.
- Governor has set a goal of 100% coverage by 2011
- This will mean over **1500** schools!



GLOBE is a BIG program!



- 60 Protocols
- Training
- Recordkeeping
- Data Entry
- Equipment
- Teachers are a *little* intimidated...



“...and my principal wants me to do something called ‘GLOBE’...”

“Seven Steps to Success”— A Great GLOBE Recipe!



Step One: “Prepare the Ingredients:
cut into bite-size pieces”



- GLOBE Protocols are divided among Grades K-8
- Protocols are assigned to grades according to State Course of Study objectives
- Training/implementation is spread over a two-year period
- Each grade usually only does two or three protocols

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Step Two: “Work with a Master Chef”

- Mentoring support is *essential!*
- Our “Kitchen staff”:
 - Teachers with GLOBE training
 - Lead teachers in each school
 - Regional AMSTI Science Specialists who are trained in GLOBE—monthly Classroom Visits
 - Qualified GLOBE Trainers for each Protocol
 - Statewide Resource Specialist and Technology Specialist
 - State-level Science Administrator and GLOBE Specialist



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Step Three: “Season Well”



Grade-appropriate
learning activities are
used for each
protocol



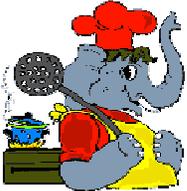
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Step Three: “Season Well”

What I <i>Think I Know</i> About Air Temperature Measurement	What I <i>Want to Find Out</i> About Air Temperature Measurement	What I <i>Have Learned</i> About ³² Air Temperature Measurement
<p>3rd Grade GLOBE, 2005</p>		

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Step Three: “Season Well”

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ACTING OUT AIR MOLECULES

STUDENTS:

1	SUN
2	RADIANT ENERGY
3	LAND
4	LAND TEMPERATURE
5	LAND with Orange Streamers
6 - 10	AIR MOLECULES (one student has sign with AIR MOLECULE)
TEMPERATURE	
11	NARRATOR
12	STUDENT WITH SLIDE WHISTLE
13	EARTH

MATERIALS:

1. Signs for: SUN, RADIANT ENERGY, AIR MOLECULES (4), AIR MOLECULE - TEMPERATURE, LAND, LAND TEMPERATURE, EARTH
2. One white crepe paper streamers
3. Five orange crepe paper streamers
4. Slide whistle
5. 2 Sliding Thermometers

AIR MOLECULES PLAY

Setting:
Student 1 (SUN) stands with a **WHITE STREAMER**
Student 2 (RADIANT ENERGY) stands next to the **SUN**

Sitting across the room:
Student 3 (LAND) sits across the room from the **SUN**
Student 4 (LAND TEMPERATURE) holding the thermometer sits with **Student 3 (LAND)**
Student 5 (LAND with five Orange Streamers) sitting with **LAND** and **LAND TEMPERATURE**

Several students (#6 - #10) (**AIR MOLECULE**) stand between the **SUN** and the **LAND**

PLAY BEGINS:
Narrator: “The sun sends out radiant energy that we call light”
Student 2 (RADIANT ENERGY) carries **WHITE STREAMER** out from the sun.
Narrator: “The light travels through space. It keeps going and some of this light or radiant energy reaches our planet.”
Student 2 (RADIANT ENERGY) takes one end of the white streamer from the **SUN** and takes it to the **LAND**.

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Making a Decision

Where will we install our instrument shelter?

	Site 1	Site 2	Site 3
1. Located on a natural surface			
2. Away from buildings and trees			
3. Not in an irrigated area			
4. Convenient to get to (not in the mud, too far away, across a road, etc.)			
5. On a flat surface			
6. Approved by principal			
TOTALS			

Values: 0=Doesn't meet standard at all
 1= Meets the standard, but there are problems
 2=Meets the standard very well

Site 1 _____

Site 2 _____

Site 3 _____

The site with the largest number of value points was _____

After comparing our result with other groups, our class decision is to place the shelter _____

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Step Four: “Use the Right Utensils”

Find ways to furnish as much equipment as you can—the more teachers have at hand, the more GLOBE participation you will have!

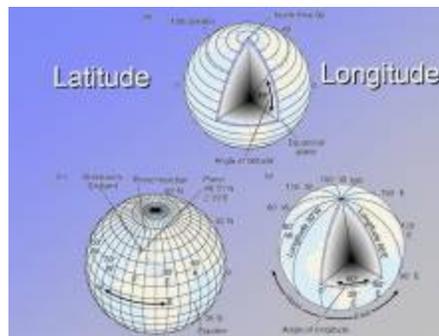
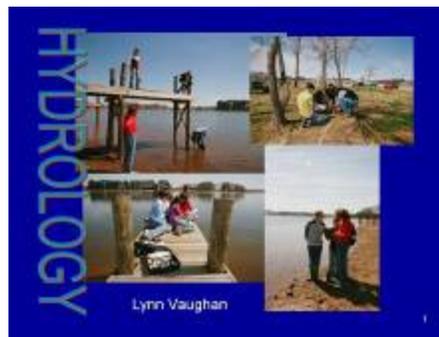
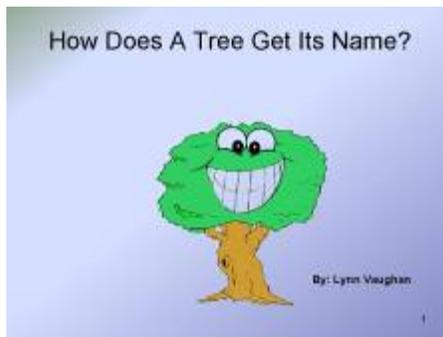


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Step Four: “Use the Right Utensils” More than just the “standard” GLOBE equipment:

Customized, grade-level PowerPoints



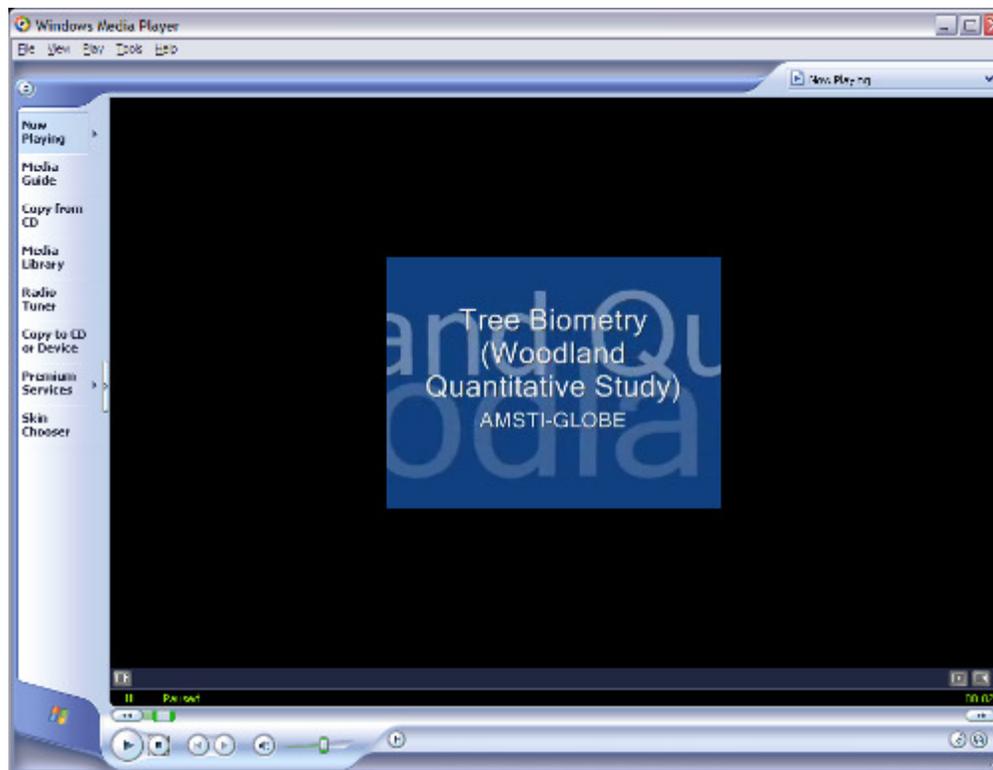
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Step Four: “Use the Right Utensils”

More than just the “standard” GLOBE equipment:

Video Protocol Podcasts

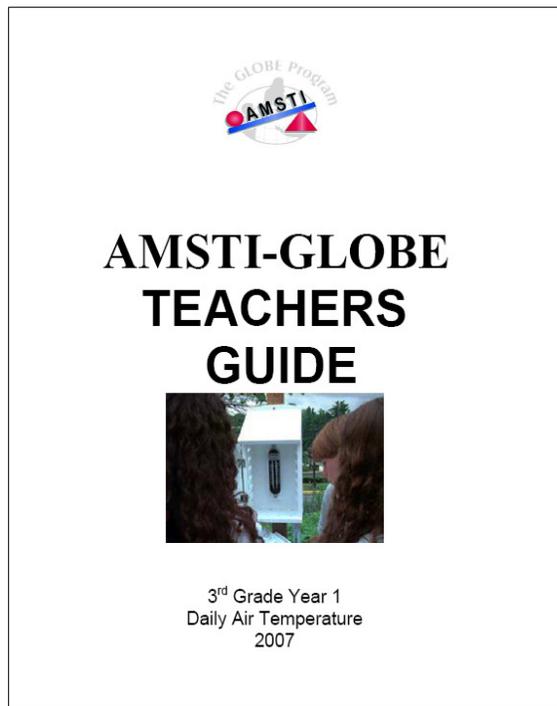


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Step Four: “Use the Right Utensils” More than just the “standard” GLOBE equipment:

Teaching Guides with Handouts



My Cloud
A Dichotomous Key
Created by Dr. Tina Cartwright, WV State Climatologist

Look carefully at your cloud. Answer the questions below, and follow the instructions. When you reach a cloud name in **bold**, that is the type of cloud you are observing. Stop at that point.

<p>1. Is it raining? No- go to number 2. Yes- with thunder, lightning, & heavy rain - your cloud is a cumulonimbus.</p> 	<p>2. Is it a high wispy cloud, like a horse's tail? No- go to number 3. Yes- your cloud is a cirrus.</p> 
<p>3. Is it flat & layered, puffy & bumpy, or some of both? Flat & layered- go to number 4 Puffy & bumpy- go to number 5 Both- your cloud is a stratocumulus.</p> 	



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Step Four: “Use the Right Utensils” More than just the “standard” GLOBE equipment:

All available online!
www.amsti.org/globe

The image displays three overlapping screenshots of the AMSTI-GLOBE website interface. The top-left screenshot shows the 'Handouts and Documents' page, featuring a sidebar with navigation links and a main content area with a list of documents. The middle screenshot shows the 'Podcasts and Newsfeeds' page, with a sidebar and a list of podcast and newsfeed items. The bottom-right screenshot shows the '2007 Grade 6' page, with a sidebar and a list of resources for Grade 6, including '2007 Teaching Guide', 'Intro to GLOBE', 'Data City', 'Link and Logbook', 'How GPS Works', 'Using a Compass', 'Barometric Pressure', 'Relative Humidity', 'Using Protractors', and 'Student Producer Manual'. The website has a red header and a blue sidebar.



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Step Five: “Go To Cooking School”

“Training, Training, & More Training”

Partner-hosted
Trainer Training
 (“TTT”)



Summer Institute
Teacher Training
 (“SI”)



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Step Six: “Mix Well; Let Simmer”

- Change Takes Time (1999-2007...)
- “Taste-test” and “Tweak”

(4 revisions in 3 years!)



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Step Seven: “Garnish with Enthusiasm!”

